National Institute of Environmental Health Sciences

We're only in it for the knowledge? A problem solving turn in environment and health expert elicitation

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Abstract:

BACKGROUND: The FP6 EU HENVINET project aimed at synthesizing the scientific information available on a number of topics of high relevance to policy makers in environment and health. The goal of the current paper is to reflect on the methodology that was used in the project, in view of exploring the usefulness of this and similar methodologies to the policy process. The topics investigated included health impacts of the brominated flame retardants decabrominated diphenylether (decaBDE) and hexabromocyclododecane (HBCD), phthalates highlighting di(2-ethylhexyl)phthalate (DEHP), the pesticide chlorpyrifos (CPF), nanoparticles, the impacts of climate change on asthma and other respiratory disorders, and the influence of environment health stressors on cancer induction. METHODS: Initially the focus was on identifying knowledge gaps in the state of the art in scientific knowledge. Literature reviews covered all elements that compose the causal chain of the different environmental health issues from emissions to exposures, to effects and to health impacts. Through expert elicitation, knowledge gaps were highlighted by assessing expert confidence using calibrated confidence scales. During this work a complementary focus to that on knowledge gaps was developed through interdisciplinary reflections. By extending the scope of the endeavour from only a scientific perspective, to also include the more problem solving oriented policy perspective, the question of which kind of policy action experts consider justifiable was addressed. This was addressed by means of a questionnaire. In an expert workshop the results of both questionnaires were discussed as a basis for policy briefs. RESULTS: The expert elicitation, the application of the calibrated confidence levels and the problem solving approach were all experienced as being quite challenging for the experts involved, as these approaches did not easily relate to mainstream environment and health scientific practices. Even so, most experts were quite positive about it. In particular, the opportunity to widen one's own horizon and to interactively exchange knowledge and debate with a diversity of experts seemed to be well appreciated in this approach. Different parts of the approach also helped in focussing on specific relevant aspects of scientific knowledge, and as such can be considered of reflective value. CONCLUSIONS: The approach developed by HENVINET was part of a practice of learning by doing and of interdisciplinary cooperation and negotiation. Ambitions were challenged by unforeseen complexities and difference of opinion and as no Holy Grail approach was at hand to copy or follow, it was quite an interesting but also complicated endeavour. Perfection, if this could be defined, seemed out of reach all the time. Nevertheless, many involved were quite positive about it. It seems that many felt that it fitted some important needs in current science when addressing the needs of policy making on such important issues, without anyone really having a clue on how to actually do this. Challenging questions remain on the quality of such approach and its product. Practice tells us that there probably is no best method and that the best we can do is dependent on contextual negotiation and learning from experiences that we think are

relevant.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388440

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Health Professional, Policymaker, Researcher

Exposure :

weather or climate related pathway by which climate change affects health

Unspecified Exposure

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

General Health Impact

Resource Type:

format or standard characteristic of resource

Policy/Opinion, Research Article

Timescale:

time period studied

Time Scale Unspecified